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09/530,200	05/15/2000	YASUHARU ASANO	112857-779	3922

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EXAMINER
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SPOONER, LAMONT M

ART UNIT	PAPER NUMBER
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2626

MAIL DATE	DELIVERY MODE
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03/18/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 09/530,200	<b>Applicant(s)</b> ASANO ET AL.	
	<b>Examiner</b> LAMONT M. SPOONER	<b>Art Unit</b> 2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12/19/07.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,4,7-27 and 30-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,4,7-27 and 30-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 October 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                                                        |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                            | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

## DETAILED ACTION

### *Introduction*

1. This office action is in response to applicant's amendment filed 12/19/07. Claims 1, 4, 7-27 and 30-33 are currently pending.

### *Response to Arguments*

2. Applicant's arguments, filed on 12/19/2007, with respect to claims 1, 17, 25, 27, 31 and 33 have been considered but are moot in view of the new ground(s) of rejection.

### *Claim Rejections - 35 USC § 112*

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 17, 31, and 25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per **claims 17 and 31**, applicant claims "wherein a second processing means for converting the natural language and a second confirmation means for confirming the results of the second processing means are provided at a stage preceding a first processing means to

thereby carry out execution in advance of confirmation to delete confirmation of result of the first processing means.” There are multiple confirming/confirmations. The Examiner is unable to determine which confirmation to which the advance execution refers.

As per **claim 25**, applicant claims, “a plurality of representations of the first natural language having one-to-one correspondence with respect to a representation of a second language by representation by the second language and a representation of a by third language representation, the third language being different from both the first and second languages.” The Examiner is unable to determine the intent of the claim, and has interpreted the claim with respect to similar claim 33 for examination purposes.

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claim 1, 4, 7-24, 27, 30-32 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamauchi et al. (US 5,652,896).

7. As per **claims 1 and 27**, Yamauchi et al. discloses an apparatus comprising:

input means for inputting a first natural language (C.10.lines 30-32);  
converting means for converting the first natural language inputted by the input means into a plurality of representations of the same first natural language (Fig. 88-his cursor in a menu box containing a plurality of converted representations in the same natural language of a first natural language input, C.19-C.20-his plurality of representations in his source language, Japanese, C.50 lines 34-45-his plurality of representations in the source language as intermediate structures (S), instead of target language patterns generated from source language, C.10.line 53, C.11.line 48-55-intermediate structure), the plurality of representations replacing postpositional words of the first natural language (ibid, Fig. 73, 74, Fig. 88, the Examiner notes, postpositional phrases/words, all are included first natural language, and are replaced in order to develop his plurality of representations in the first natural language, C.20 lines 13-62-describe alternate words replacing postpositional words, and having "sem" left over

in a pattern, functioning as an auxiliary, however, does not teach having a source language that precludes postpositional phrases from being replaced by another representation, furthermore the entire source language sentence is processed, including postpositional phrases, C.20 lines 61-67, and may be replaced, C.21 lines 18-25-his “sem”/postpositional word and further word creation to the structure);

confirmation means for confirming at least one representation converted by the converting means as being closest in meaning to the inputted first natural language (Fig. 88 his cursor providing confirmation means for closest in meaning of one of a plurality of representations of an input, C.50 lines 45-47-his selection as the intended/inherent closest in meaning, C.13.lines 44-50-generations of the intermediate structure (S) from the source input, C.38.lines 27-29);

processing means for translating the representation confirmed by the confirmation means to a second natural language (C.50 lines 48-50 and C.38.lines 26-35); and

output means for outputting the second natural language processed by the processing means (C.38.lines 55, 56).

As per **claim 4**, Yamauchi et al discloses all of the limitations of claim 1, upon which claim 4 depends. Yamauchi et al. further discloses:

the processing means carries out processing by template (Fig 28-the template-corresponding to processing means for translation).

As per **claim 7**, Yamauchi et al. discloses all of the limitations of claim 1, upon which claim 7 depends. Yamauchi et al. further discloses:

the converting means further converts the first natural language inputted by the input means into third language (C.38.lines 7-9-retranslation is interpreted as a third language from a first language, C.37.lines 39-59, in addition C.52.lines 35-38-Kana to Kanji to English conversion).

As per **claim 8**, Yamauchi et al discloses all of the limitations of claim 1, upon which claim 8 depends. Yamauchi et al. further discloses:

the converting means converts plural representations into single representation with respect to representation of natural language inputted by the input means (C.14.lines 17-22).

As per **claim 9**, Yamauchi et al discloses all of the limitations of claim 1, upon which claim 9 depends. Yamauchi et al. further disclose:

the converting means converts polysemous representation into plural univocal representations with respect to representation of natural language inputted by the input means (C.14.lines 50-61).

As per **claim 10**, Yamauchi et al. discloses all of the limitations of claim 1, upon which claim 10 depends. Yamauchi et al. further discloses:

the converting means carries out conversion by at least one of merger (integration), division, deletion, replacement and exchange of order with respect to representation of natural language inputted by the input means (C.21.lines 60-67, C.22.line 48-C.23.line 16-replacement and deletion with respect to the source language is done with the reference sentence with respect to the intermediate structure).

As per **claim 11**, Yamauchi et al. discloses all of the limitations of claim 1, upon which claim 11 depends. Yamauchi et al. further discloses:

the input means inputs natural language by speech (C.37.lines 42-45).

As per **claim 12**, Yamauchi et al. discloses all of the limitations of claim 11, upon which claim 12 depends. Yamauchi et al. further discloses:

the confirmation means confirms, only once, natural language inputted by speech to the input means (C.37.lines 42-45, C.38.lines 40-56).



As per **claim 13**, Yamauchi et al. discloses all of the limitations of claim 1, upon which claim 13 depends. Yamauchi et al. further discloses:  
the input means inputs natural language character by character  
(C.37.lines 42, 43-keyboard input).

As per **claim 14**, Yamauchi et al. discloses all of the limitations of claim 13, upon which claim 14 depends. Yamauchi et al. further discloses:  
the confirmation means confirms, only once, natural language inputted by character at the input means (C.37.lines 42, 43 C.38.lines 40-56).

As per **claims 15**, Yamauchi et al. discloses all of the limitations of claim 1, upon which claim 15 depends. Yamauchi et al. further discloses:  
the first natural language is inputted to the input means (see claim 1),  
the converting means converts first language inputted via the input means into a second representation of the second language and converts it into first representation of the first language having one-to-one correspondence with respect to the second representation, and the confirmation means carries out confirmation by using the first representation (C.38.lines 24-35).

As per **claims 16 and 30**, Yamauchi et al. discloses all of the limitations of claim 15, upon which claim 16 depends. Yamauchi et al. further discloses:

the processing means translates the first language into the second language on the basis of conversion at the converting means and confirmation at the confirmation means and the output means outputs the second language translated by the processing means (C.38.lines 24-56).

As per **claim 17 and 31**, Yamauchi et al. discloses a natural language processing apparatus comprising:

input means for inputting natural language (C.15.lines 25-27, C.37.lines 39, 40);

a plurality of processing means for implementing processing of the natural language (C.10.lines 44-67, C.11.lines 48-55, C.37.lines 42-45, speech input processing and analysis processing, Fig. 115 text editor processing), at least one processing means configured to convert the first natural language inputted into a plurality of representations of the natural language (Fig. 88-his cursor pointed at the plurality of representations, C.50 lines 34-45-his plurality of representations in the source language as

intermediate structures (S), instead of target language patterns generated from source language);

a plurality of confirmation means for confirming result of processing with respect to the natural language (Fig. 61-input confirmation in the edit area, C.38.lines 25-30-input sentence structure), at least one confirmation means configured to confirm at least one representation being closest in meaning to the inputted first natural language (Fig. 88-his cursor to the closest/intended meaning, C.50 lines 45-47 further confirmation means); and

output means for outputting the processed natural language (C.37.lines 55-59, C.50 lines 45-47),

wherein a second processing means for converting the natural language and a second confirmation means for confirming result of the second processing (C.38.lines 40-45-second processing including information retrieval processing by natural language wherein the confirmation is the user selection of a presented word-to-word translation, C.38.lines 1-9, 16, 17, which includes retrieval processing by the natural language input) means are provided at a stage preceding a first processing means to thereby carry out execution in advance of confirmation to delete

confirmation of result of the first processing means (Fig. 78-step 19, step 20, Fig. 79 steps 25, 26...Yamakita provides multiple confirmation means, however, in advance of his step 26, contains an operation to delete confirmation-his deletion by selecting "Y" which makes null the previous confirmation/taken as deletion, and provides a current confirmation translation).

As per **claim 18**, Yamauchi discloses all the limitations of claim 17, upon which claim 18 depends. Yamauchi et al. further discloses:

processing by the first processing means is machine translation processing, kana-kanji conversion processing, information retrieval processing by natural language, or representation conversion processing by natural language (C.38.lines 40-56- translating being the first processing means, and the translation is displayed).

As per **claim 19**, Yamauchi et al. discloses all of the limitations of claim 17, upon which claim 19 depends. Yamauchi et al. further discloses:

processing by the second processing means is machine translation processing, kana-kanji conversion processing, information retrieval processing by natural language, or representation conversion processing by natural language (C.38.lines 40-45-second processing including

information retrieval processing by natural language wherein the confirmation is the user selection of a presented word-for-word translation of natural, C.38.lines 1-9, 16, 17, which includes retrieval processing by the natural language input).

As per **claim 20 and 32**, Yamauchi et al. discloses all of the limitations of claim 17, upon which claim 20 depends. Yamauchi et al. further discloses:

at a stage preceding the second processing means (the speech or OCR input necessarily precedes the above cited second processing means), a third processing means and third confirmation means for confirming result thereof (speech input or OCR input and confirmation thereof in the input Edit section, C.37.lines 39-44, Fig 61 "Editing", "Japanese", "original"), wherein the third confirmation means is coupled to the portion after the second or subsequent processing means, or wherein the third confirmation means is merged or integrated into the second confirmation means or confirmation means of the stage succeeding thereto to carry out postponement of confirmation (C.37.lines 39-55, Fig. 65 items 21, 26, Fig 85 items 62, 66, the speech or OCR input and confirmation means are coupled to the information retrieval from the information

recording unit which contains a plurality of information databases, which inherently provides, until the input is confirmed-the process of receiving the input by speech and confirming by selection of the input to be implemented in another process, postponement of the machine translation is carried out).

As per **claim 21**, Yamauchi et al. discloses all of the limitations of claim 20, upon which claim 21 depends. Yamauchi et al. further discloses:

the second confirmation and the third confirmation means are merged or integrated gives result of processing as numeric value to present the numeric value (C.19.lines 49-57-the recognized and confirmed words inputted and confirmed integrated identified processed natural language for retrieval, have calculated scores).

As per **claim 22**, Yamauchi et al. discloses all of the limitations of claim 20, upon which claim 22 depends. Yamauchi et al. further discloses:

the first processing means carries out machine translation (C.37.line 50)and the third processing means carries out speech recognition (C.37.lines 44, 45).

As per **claim 23**, Yamauchi et al. discloses all of the limitations of claim 20, upon which claim 23 depends. Yamauchi et al. further discloses:

speech recognition processing means for carrying out speech recognition of natural language inputted to the input means (C.37.lines 43-45), recognition result confirmation means for confirming recognition result at the speech recognition processing means (C.51.line 63-C.52.line 15-input editing means, wherein the input is confirmed by selection), machine translation means for implementing machine translation to the result confirmed at the recognition result confirmation means, (C.37.line 48), and translation result confirmation means for confirming translation result at the machine translation means (C.37.lines 55-59).

wherein representation conversion processing means for converting representation and representation conversion confirming means for confirming result of the conversion (C.10.lines 30-32, C.13.lines 44-50, C.23.lines 26-59, C.32.line 59-C.33.line 6, C.38.lines 27-29) thereof are supplemented at the preceding stage of the machine translation processing (C.23.lines 41-59) means to thereby carry out execution in advance of processing by the translation result confirmation means (C.23.lines 58, 59) to omit the translation result confirming means of the stage succeeding to the machine translation processing means (C.23.lines 58, 59, Fig. 28, Fig. 29-the translation confirming means has been omitted by the confirmation

of the original input sentence conversion means-the confirmed sentence is translated without further confirmation, C.23.line 59, "the translation is completed").

As per **claim 24**, Yamauchi et al. discloses all of the limitations of claim 23, upon which claim 24 depends. Yamauchi et al. further discloses: postponement of processing by the recognition result confirming means which merges or integrates the recognition result confirmation result with the representation conversion result confirming means existing at the stage succeeding thereto is carried out (C.37.lines 39-55, Fig. 65 items 21, 26, Fig 85 items 62, 66, the speech input and confirmation means are coupled to the information retrieval from the information recording unit which contains a plurality of information databases, which inherently provides, until the input is confirmed-the process of receiving the input by speech and confirming by selection of the input to be implemented in another process, postponement of the machine translation is carried out).

### ***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the



invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 25, 26 and 33 rejected under 35 U.S.C. 103(a) as being unpatentable over Yamauchi in view of Fushimoto (US 5,742,505).

As per **claims 25 and 33**, Yamauchi et al discloses a natural language apparatus comprising:

input means for inputting a first natural language (C.15.lines 25-27, C.37.lines 39, 40);

converting means for converting the first natural language inputted to the input means into a plurality of representations of the first natural language (Fig. 88-his menu of items) having one-to-one (C.38.lines 1-4) correspondence with respect to a representation of second language and a representation of a by third language representation(C.38.lines 4-5, his second translation);

confirmation means for confirming the representation of the third language converted at the converting means as being the closest in meaning to the inputted first natural language (Fig. 88-his cursor to the item representing the closest in intended meaning, C.38.lines 24-35-confirmation of second translation);

processing means for implementing processing to the first natural language inputted at the input means in accordance with result of the confirmation at the confirmation means (C.37.lines 39-59-maching language processing to the input, in accordance with the result confirmation unit, 24); and

output means for outputting the first natural language to which the processing has been implemented at the processing means (C.37.lines 58, 59).

Yamauchi lacks explicitly teaching the third language being different from both the first and second languages. However, Fushimoto teaches the third language being different from both the first and second language (C.7 lines 25-31). Therefore, at the time of the invention, it would have been obvious to one ordinarily skilled in the art to modify Yamauchi's second language representation with a third language representation, the third language being different from both the first and second languages, providing the benefit of using an intermediate language to translate from a first language to a second, providing there is a better translation between the first and third language, wherein the third language can further be accurately translated into the desired second language.

As per **claim 26**, Yamauchi et al. with Fushimoto disclose all of the limitations of claim 25, upon which claim 26 depends. Yamauchi et al. further discloses:

at the converting means, the second language is language to be translated (C.38.lines 6, 7-first retranslation portion-second language is to be translated), and representation by the third language is obtained by conversion of representation by the first language (C.38.lines 6-9-retranslation resulting in the third language results from the first input language, C.37.line 39-C.38.line 9).

### ***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Onishi et al. (US 6,154,720) teaches input means for inputting a first natural language; converting means for converting the first natural language inputted by the input means into a plurality of representations of the same first natural language, the plurality of representations replacing postpositional words of the first natural language;confirmation means for confirming at least one representation converted by the converting means as being

closest in meaning to the inputted first natural language;  
processing means for translating the representation confirmed  
by the confirmation means to a second natural language; and  
output means for outputting the second natural language  
processed by the processing means.

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to LAMONT M. SPOONER whose telephone number is 571-272-7613. The examiner can normally be reached on 8:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard can be reached on 571-272-7602. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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